

2017 Consumer Confidence Report

Water System Name: YWAM Chico PWS #04-00001 Report Date: May 1, 2018

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2017 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: Well/ Aquifer

Name & general location of source(s): Well/ Aquifer

Drinking Water Source Assessment information: _____

Time and place of regularly scheduled board meetings for public participation: _____

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TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (U.S. EPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variations and Exemptions: State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (µg/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (state Total Coliform Rule)	(In a mo.) 0	0	1 positive monthly sample	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> (state Total Coliform Rule)	(In the year) 0	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive	0	Human and animal fecal waste
<i>E. coli</i> (federal Revised Total Coliform Rule)	(In the 0year)	0	(a)	0	Human and animal fecal waste

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

Lead and Copper (complete if lead or copper detected in the last sample set)	Sample Date	No. of Samples Collected	90 th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	Not needed until Summer 2018	0	0	0	15	0.2		Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	Not needed until Summer 2018	0	0	0	1.3	0.3	Not applicable	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm) (well #1)	May 2, 2017	22		none	none	Salt present in the water and is generally naturally occurring
Sodium (ppm)(well#2)	May 2, 2017	60		none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)(well#1) (ppm)(well#2)	May 2, 2017	212 232		none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
pH (well#1) (well#2)	May 2, 2017	7.5 7.4		none	none	

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Nitrate (well#1&2)	May 2, 2017	ND		45		Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrite (well #1&2)	May 2, 2017	ND		1	1	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Fluoride (F) (well #1&2)	May 2, 2017	0.2ppm		2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Aluminum	May 2, 2017	ND		1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (well #1&2)	May 2, 2017	ND		10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Antimony	May 2, 2017	ND		6	1	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Boron	May 2, 2017	.3ppm		1ppm		
Barium	May 2, 2017	ND		1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Beryllium	May 2, 2017	ND		4	1	Discharge from metal refineries, coal-burning factories, and electrical, aerospace, and defense industries
Cadmium	May 2, 2017	ND		5	0.04	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories, and metal refineries; runoff from waste batteries and paints
Glyphosate (example..Round-up)	Apr 4, 2017	ND		700	900	Runoff from herbicide use
Mercury (inorganic) (well 1&2)	May 2, 2017	ND		2	1.2	Erosion of natural deposits; discharge from refineries and

						factories; runoff from landfills and cropland
Nickel (well 1 & 2)	May 2, 2017	ND		100	12	Erosion of natural deposits; discharge from metal factories
Perchlorate (well #1&2)	May 2, 2017	ND		6	1	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts.
Selenium (well#1&2)	May 2, 2017	ND		50	30	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Thallium (well#1&2)	May 2, 2017	ND		2	0.1	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Iron	Oct 2017 Due	Sample not collected		300ug/L		Leaching from natural deposits; industrial wastes
Manganese	Oct 2017 Due	Sample not collected		50ug/L		Leaching from natural deposits
Iron (follow-up)	February 2018	80		300ug/L		Leaching from natural deposits; industrial wastes
Manganese (follow-up)	February 2018	12.1		50ug/L		Leaching from natural deposits
Chloride (well#1) (well#2)	May 2, 2017	7ppm 20ppm		500ppm		Runoff/leaching from natural deposits; seawater influence
Sulfate (SO ₄) (well#1) (well#2)	May 2, 2017	87.7ppm 89.7ppm		500ppm		Runoff/leaching from natural deposits; industrial wastes
Specific Conductance (E.C.) µS/cm (well#1)	May 2, 2017	503		1600		Substances that form ions when in water; seawater influence
Specific Conductance (E.C.) µS/cm (well#2)	May 2, 2017	410		1600		Substances that form ions when in water; seawater influence
Foaming Agents (MBAS) (well#1&2)	May 2, 2017	ND		500ppb		Municipal and industrial waste discharges
Copper (well#1&2)	May 2, 2017	ND		1.0ppm		Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Total Trihalomethanes	Aug 11, 2017	5		80		Byproduct of drinking water disinfection

(TTHM)					
Haloacetic (five) (HAA5)	Aug 11, 2017	5		60	Byproduct of drinking water disinfection
Silver	May 2, 2017	ND		100	Industrial discharges
Zinc (well#1&2)	May 2, 2017	ND		5.0	Runoff/leaching from natural deposits; industrial wastes

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA’s Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead-Specific Language for Community Water Systems: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. [INSERT NAME OF UTILITY] is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4701) or at <http://www.epa.gov/lead>.

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
Iron Post treatment sample for 2017 not collected (See attached Teier 3 Monitoring Violation letter)	I did not receive or Notice a sample request during the month of October for Post Treatment Iron and Manganese. In which I did request the missing sample to be completed.	October 2017 Sample collected Feb 15 th , 2018	Sample collected on Feb 15, 2018 (see results in table 5 above)	

<p>Manganese Post treatment sample for 2017 not collected (See attached Teier 3 Monitoring Violation letter)</p>	<p>I did not receive or Notice a sample request during the month of October for Post Treatment Iron and Manganese. In which I did request the missing sample to be completed.</p>	<p>October 2017 Sample collected Feb 15th, 2018</p>	<p>Sample collected on Feb 15, 2018 (see results in table 5 above)</p>	<p>The notification level for manganese is used to protect consumers from neurological effects. High levels of manganese in people have been shown to result in effects of the nervous system.</p>
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For Water Systems Providing Groundwater as a Source of Drinking Water

<p align="center">TABLE 7 – SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE GROUNDWATER SOURCE SAMPLES</p>					
<p>Microbiological Contaminants (complete if fecal-indicator detected)</p>	<p>Total No. of Detections</p>	<p>Sample Dates</p>	<p>MCL [MRDL]</p>	<p>PHG (MCLG) [MRDLG]</p>	<p>Typical Source of Contaminant</p>
<p><i>E. coli</i></p>	<p>(2017) 0</p>	<p>N/A</p>	<p>0</p>	<p>(0)</p>	<p>Human and animal fecal waste</p>
<p>Enterococci</p>	<p>(2017) 0</p>	<p>N/A</p>	<p>TT</p>	<p>n/a</p>	<p>Human and animal fecal waste</p>
<p>Coliphage</p>	<p>(2017) 0</p>	<p>N/A</p>	<p>TT</p>	<p>n/a</p>	<p>Human and animal fecal waste</p>